



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

COMPENSATED DENSITY/NEUTRON LOG

Company		L.D. DRILLING, INC.	
Well		#1-22 LORETTA POLZIN TRUST	
Field		WILDCAT	
County		BARTON	
State		KANSAS	
Location:		AP1 # : 15-009-25894-0000 1460' FSL & 1710' FWL	
SEC 22 TWP 18S RGE 14W		Other Services DIL/MEL SONIC	
Permanent Datum	GROUND LEVEL	Elevation	1911
Log Measured From	KELLY BUSHING 5' A.G.L.	K.B. 1916	
Drilling Measured From	KELLY BUSHING	D.F. 1914	
		G.L. 1911	
Date	10/21/13		
Run Number	ONE		
Depth Driller	3550		
Depth Logger	3549		
Bottom Logged Interval	3525		
Top Log Interval	2800		
Casing Driller	8 5/8" @ 897'		
Casing Logger	896		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5000 PPM	
Density / Viscosity	9.2/53		
pH / Fluid Loss	9.0/8.8		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	.70 @ 86F		
Rinf @ Meas. Temp	.52 @ 86F		
Rinc @ Meas. Temp	.84 @ 86F		
Source of Rinf / Rinc	MEASURED		
Rin @ BHT	.53 @ 112F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	112F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	KIM SHOEMAKER		

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR USING NABORS COMPLETION & PRODUCTION SVCS. (785) 628-6395

DIRECTIONS:

INTERSECTION OF HWY 4 & 281 - 4 MILES SOUTH TO RD. 80 - 1 MILE WEST
3/4 MILE SOUTH - EAST INTO



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MAIN SECTION

Database File:

010947ddn.db

Dataset Pathname:

pass3.1

Presentation Format:

_den_neu

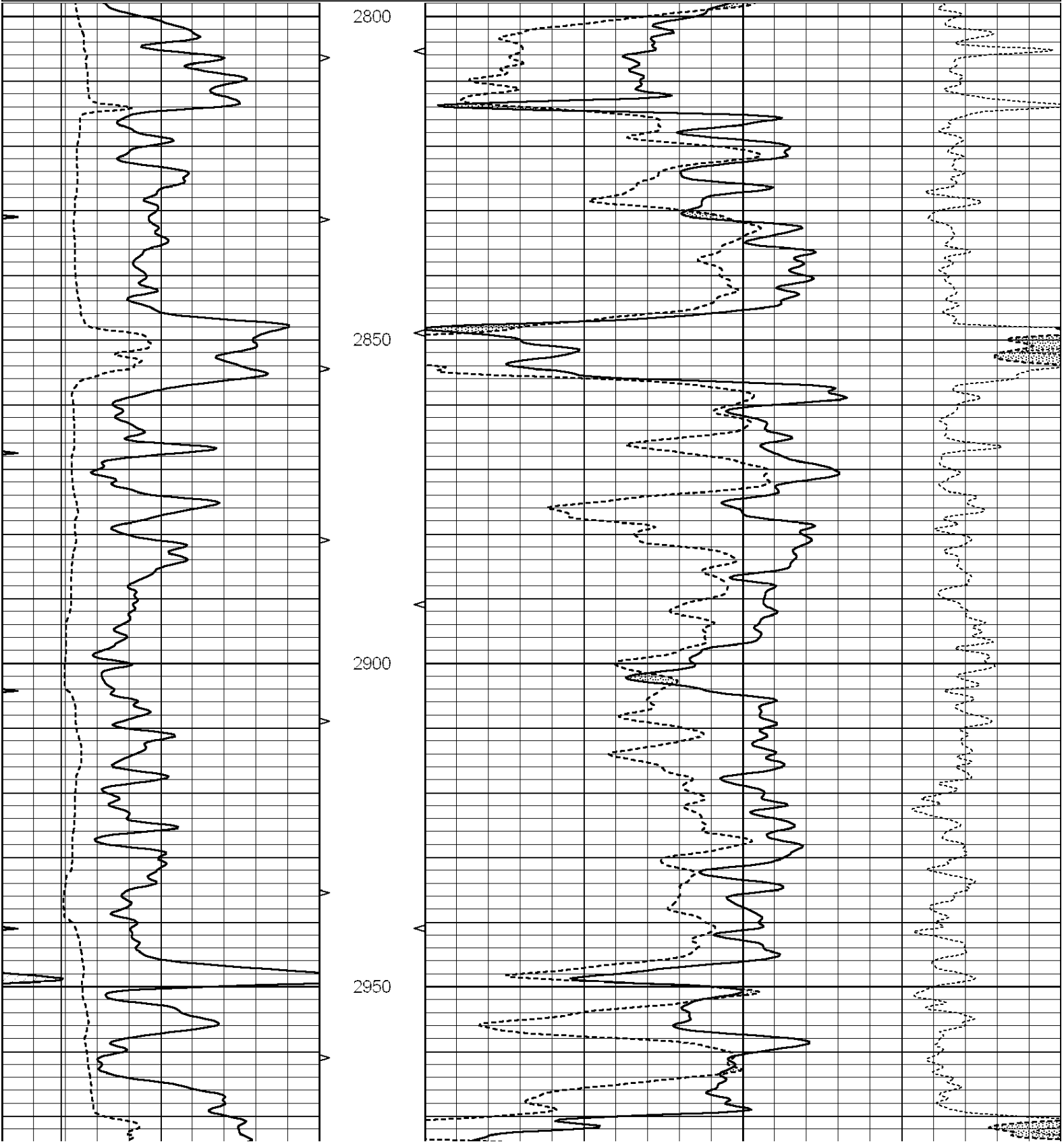
Dataset Creation:

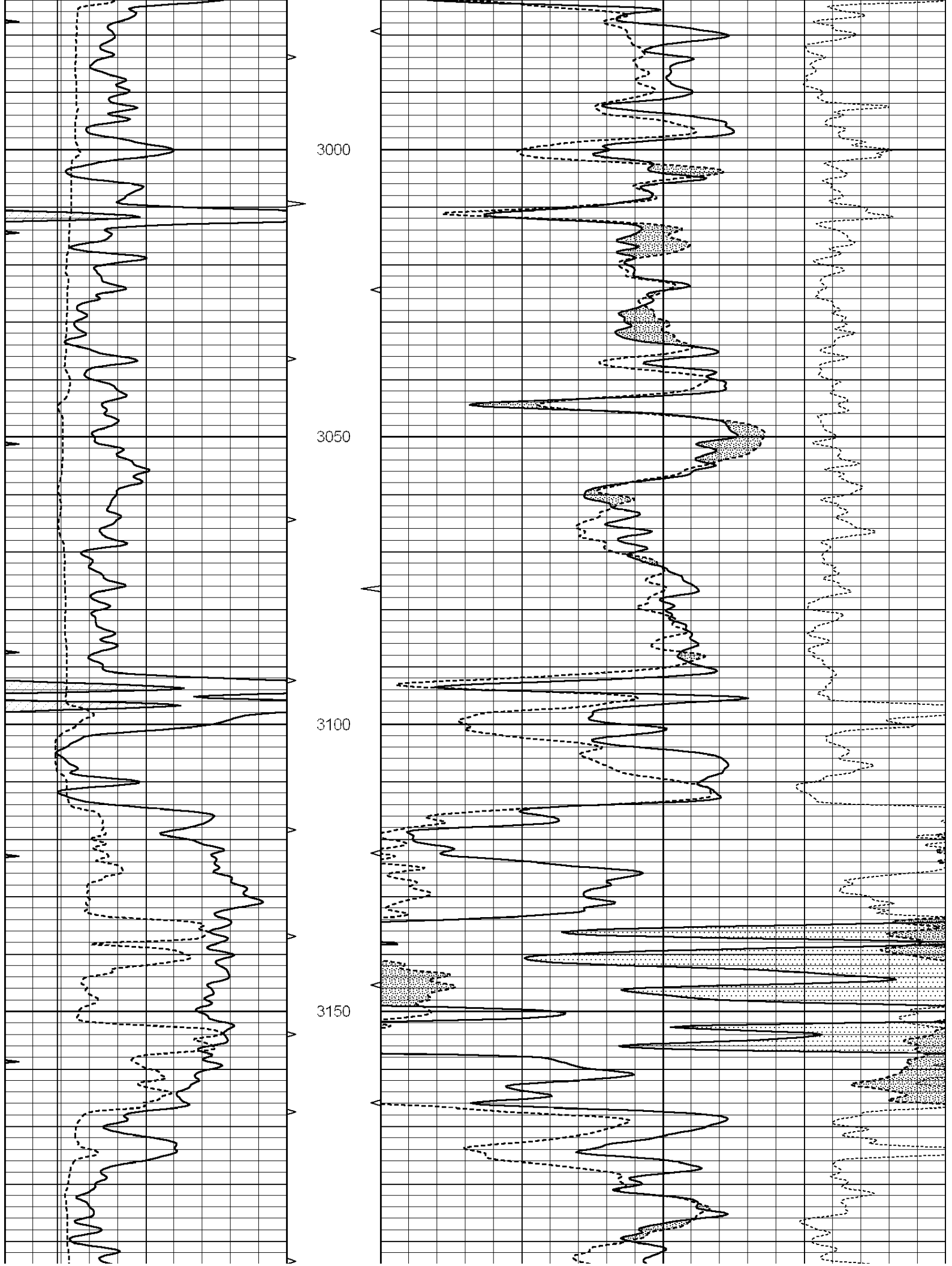
Mon Oct 21 13:15:52 2013 by Calc Open-Cased 090629

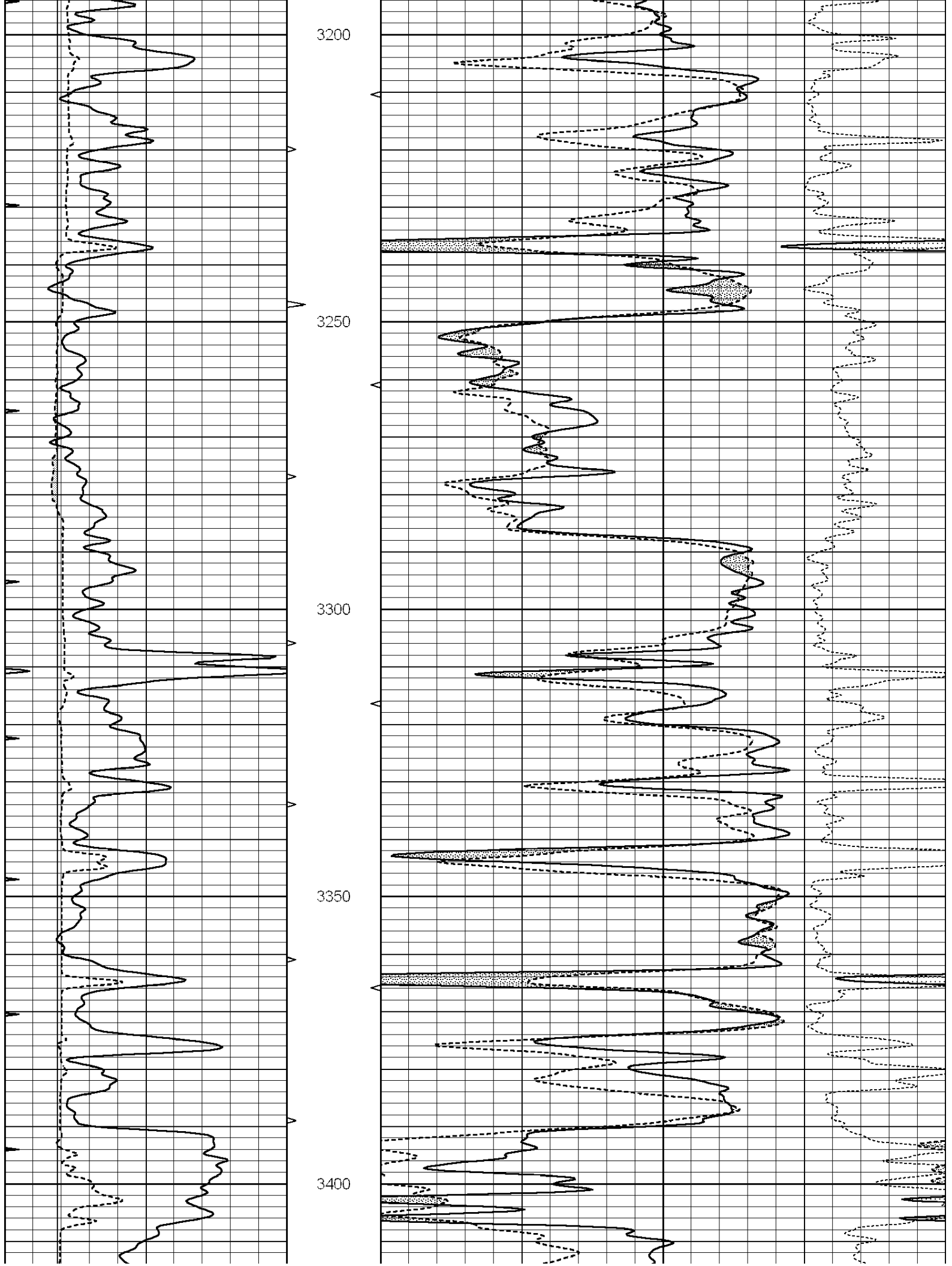
Charted by:

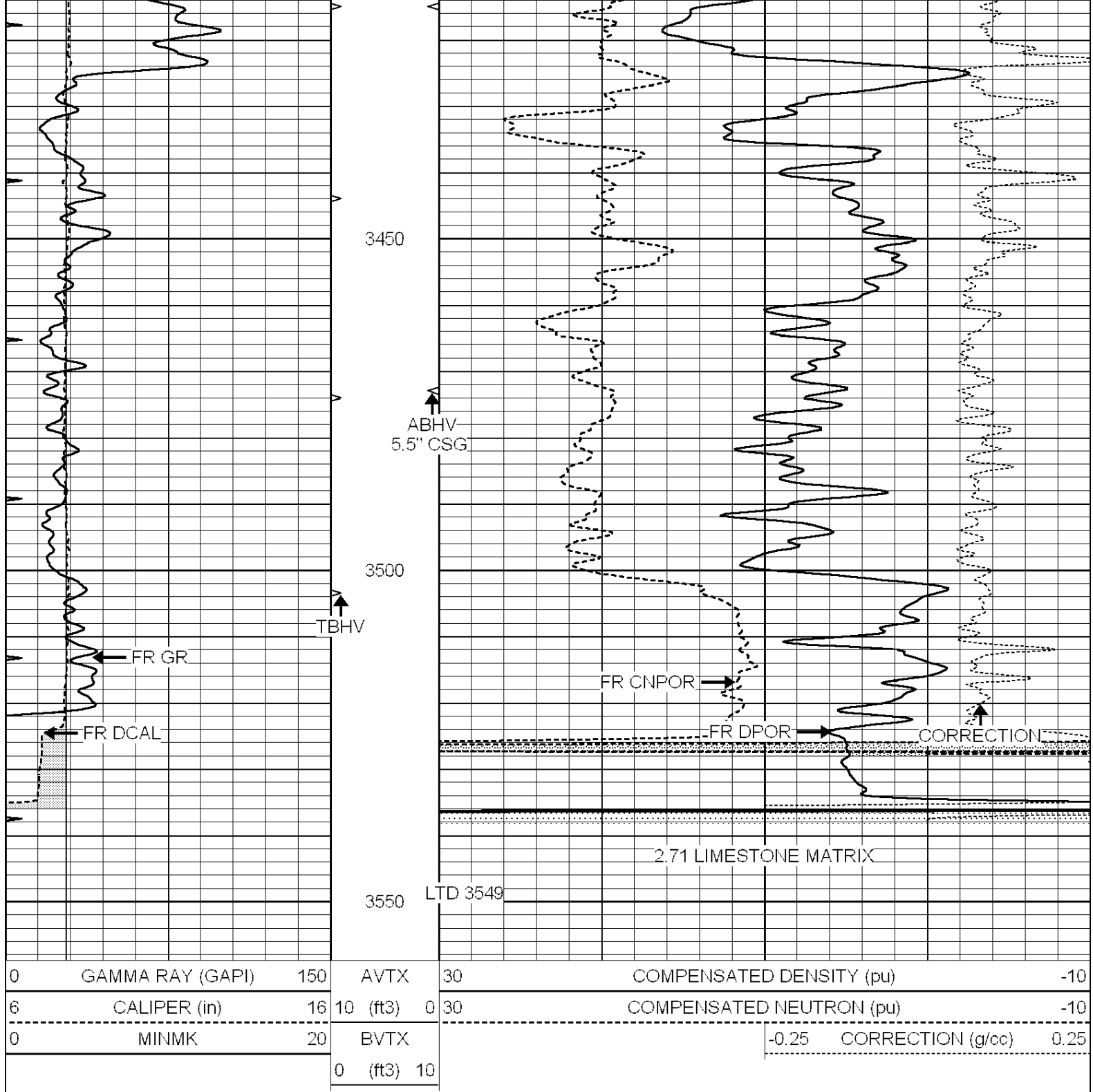
Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		







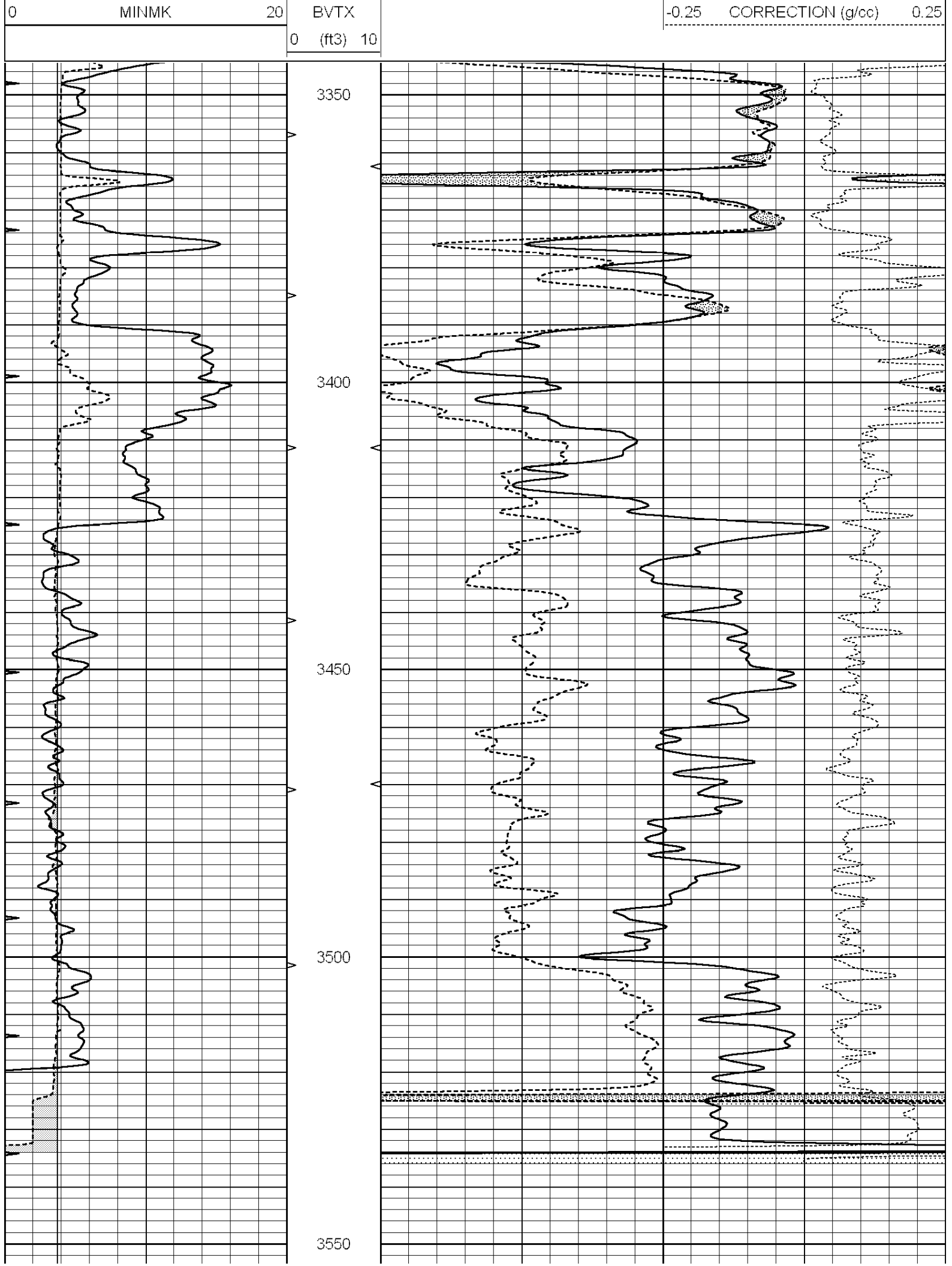


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REPEAT SECTION

Database File: 010947ddn.db
Dataset Pathname: pass2.1
Presentation Format: _den_neu
Dataset Creation: Mon Oct 21 13:14:02 2013 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10



0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			

Calibration Report									
Database File:		010947ddn.db							
Dataset Pathname:		pass2.1							
Dataset Creation:		Mon Oct 21 13:14:02 2013 by Calc Open-Cased 090629							
Dual Induction Calibration Report									
Serial-Model:					PROBE8-DILG				
Surface Cal Performed:					Fri Aug 01 06:33:19 2008				
Downhole Cal Performed:					Mon Jul 28 11:08:27 2008				
After Survey Verification Performed:					Mon Jul 28 11:08:27 2008				
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730	
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619	
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739	
Downhole Calibration									
		Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000	
LL3		7.500	V		1500.000	Ohm-m			
		0.000	V		20.000	Ohm-m			
		-7.200	V		3800.000	mmho-m			
After Survey Verification									
		Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000	
LL3		1.000	Ohm-m		1.000	Ohm-m			
		0.000	Ohm-m		0.000	Ohm-m			
		1.000	mmho-m		1.000	mmho-m			
Compensated Density Calibration Report									
Serial-Model:					GEAR4-GEARHART				
Source / Verifier:					143 / 143				
Master Calibration Performed:					Mon Mar 19 19:07:19 2012				
Master Calibration									
		Density			Far Detector		Near Detector		
Magnesium		1.710	g/cc		1015.91		497.51	cps	
Aluminum		2.600	g/cc		227.67		350.20	cps	

Spine Angle = 76.79

Density/Spine Ratio = 0.579

Spine Angle = 76.79			Density/Spine Ratio = 0.579	
	Size		Reading	
Small Ring	8.00	in	3.21	V
Large Ring	14.00	in	5.46	V
Compensated Neutron Calibration Report				
Serial Number:		6I		
Tool Model:		G		
CALIBRATION				
Detector	Readings		Target	Normalization
Short Space	1.00	cps	1.00	cps
Long Space	1.00	cps	1.00	cps
Gamma Ray Calibration Report				
Serial Number:		#8		
Tool Model:		OPEN		
Performed:		Mon Jun 13 16:56:43 2011		
Calibrator Value:		150.0	GAPI	
Background Reading:		0.0	cps	
Calibrator Reading:		175.0	cps	
Sensitivity:		0.8371	GAPI/cps	